

STATE OF MAINE

DEPARTMENT OF MARINE RESOURCES

IN THE MATTER OF THE APPLICATION OF PEMAQUID OYSTER COMPANY, INC., FOR AN AQUACULTURE LEASE LOCATED OFF GOOSE LEDGES, DAMARISCOTTA RIVER, DAMARISCOTTA, LINCOLN COUNTY, MAINE))))))	FINDINGS OF FACT, CONCLUSIONS OF LAW AND DECISION
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On September 26, 2000, Pemaquid Oyster Co., Inc., of Waldoboro, Maine applied for an aquaculture lease totaling 5.42 acres of coastal waters of the State of Maine in the upper Damariscotta River, Damariscotta, Lincoln County, Maine. The applicant requested the lease for a term of ten years for the purpose of cultivating American oysters (Crassostrea virginica), European oysters (Ostrea edulis), hard clams (quahogs) (Mercenaria mercenaria), surf clams (Spisula solidissima) and razor clams (Ensis directus) using bottom culture techniques.

Approval of aquaculture leases is governed by 12 M.R.S.A. §6072. This statute provides that the Commissioner of the Department of Marine Resources (DMR) may grant a lease if he determines that the project will not unreasonably interfere with the ingress and egress of riparian owners, navigation, fishing or other uses of the area; the ability of the site and surrounding areas to support ecologically significant flora and fauna; or the use or enjoyment within 1,000 feet of municipally, state or federally owned beaches, parks, or docking facilities. The Commissioner must also determine that the applicant has demonstrated that there is an available source of organisms to be cultured for the lease site.

A public hearing on this application was held on May 15, 2001 in Damariscotta.

**Evidence Introduced Concerning the Nature
and Impact of the Proposed Lease**

Mr. Chris Davis, a general partner and principle officer (Secretary and Treasurer) of Pemaquid Oyster Co., Inc., provided testimony and answered questions on the company's application, its development and operations. The proposed lease would be similar to the company's existing 5.54 acres held in two leases adjacent to the proposed lease. Mr. Jeffrey McKeen, vice-president of the

company, also testified. Mr. Davis will hereafter be referred to as the partner and Mr. McKeen as the vice-president. Exhibits 1, 2 and 4.

The partner testified that his company has held aquaculture leases in the Damariscotta River since 1986 and also worked in the area raising shellfish for two years prior to 1986. The company owns a shellfish hatchery in Bremen and owns shorefront property approximately ½ mile south from the proposed lease site, which is used for storage of equipment. The partner testified that access to the proposed lease would be by boat from rented space at the Schooner Landing Marina in Damariscotta or from leased space in Clarks Cove located downriver. The Damariscotta Town Landing would be used for launching or retrieving of boats at the start and end of the fishing season.

The general activities include placing hatchery-reared shellfish (1-2mm size) in an upweller device for approximately 8 weeks (at a separate location). This allows the seed to grow large enough [25-40mm (1½ inches)] to place them in surface trays located on nearby leaseholds. Larger seed shellfish would be planted by hand directly on the bottom of the proposed lease, as they are currently planted on the adjacent bottom leases. Planting of seed is a quick process and generally takes place during November and December, when crab predation is low. Planting may also take place mid-summer depending on the development of larger seed in the hatchery or when seed is held over from the previous year that was too small to plant on bottom before winter. This would also be done to avoid mortalities caused by the periodic occurrence of Juvenile Oyster Disease (JOD) in the Damariscotta River.

The American oyster is the primary species to be raised. The other proposed species would be cultivated on a limited basis. The oysters would be seeded in densities of 15 per square foot. The partner explained that in this location planting in higher densities would cause stunted growth and in lower densities it would increase the time required to harvest the oysters and would therefore require more acreage. The company's objective with the combined area of the proposed and adjacent leases would be to cultivate a total of one million oysters within the total area per year. The proposed eight-sided lease (400' x 686' x 180' x 257' x 380' x 200' x 269' x 400') would tie two separate existing leases together and reduce the irregular shape of the existing lease boundaries. If granted, the total area of the

combined leases would be cultivated on a 3-year rotation basis with one-third of the combined area harvested during any given year, one-third growing and one-third being seeded with a new crop. Oysters usually take 1 – 2 years to grow to market size. Harvest activities would take place 1 – 2 days per week from mid-April through December or January depending on the presence or absence of ice. Harvesting would be done by diver or by using a small 30-inch steel drag. Culture and harvest activity on the proposed lease would be the same that has occurred on the adjacent leases for the past 15 years. The partner testified that occasionally temporary buoy markers would be used to mark harvesting areas; he explained that the buoys are used instead of bamboo stakes, which were used at one time in the past.

The partner explained that the proposed lease is situated outside of the deeper water main channel that flows west of Goose Ledges. Water depths of the proposed lease average 4 to 15 feet at mean low water (MLW). The starting point of the proposed lease, a prominent boulder, is also a corner in the adjacent leases and was intentionally used as a connecting point, for the proposed lease with the adjacent leases. He stated that small boats or skiffs pass east of Goose Ledges as a short cut to travel around Hog Island located southeast of the proposed lease. During the summer traffic was described as 2 – 4 boats per daylight hour and very little traffic at night.

The depths across the proposed lease were ascertained from 17 years of observations while diving the area, working the adjoining leases and using a color depth sounder on their boat. In the partner's opinion, the corner at point F of the proposed lease, which is also a corner of the existing leases (GL1, tract 523-06 and GL3, tract 407-03), has 1½ feet of water during an extreme minus tide (approximately –2.0 feet). The corner at point A on the middle of the proposed lease, also a common corner with the existing leases (GL1, tract 523-06 and GL3, tract 406-03), would not be fully exposed, although it may border on being fully exposed during an extreme low tide. Points A and F border a ledge.

The partner testified that in his opinion, the proposed lease had ideal sediments, temperature and nutrient characteristics favorable to culturing shellfish. The area has good current flow, with bottom sediments that grade from cobble to silty sand. Tidal currents are less than one knot. Resident fauna

consists of an abundance of periwinkles and unidentified hydroids. Commonly observed fauna includes oyster drills, barnacles, mud shrimp, unidentified sponges, frilled anemones, colonial tunicates and several crab species: rock crabs, green crabs, hermit crabs and horseshoe crabs. Occasionally observed fauna includes the common starfish, soft-shell clams, hard clams, razor clams, European oysters, winter flounder and menhaden. Flora rarely observed include rockweed and kelp. The partner testified that eelgrass does not grow on the proposed lease. In response to questions on horseshoe crabs, the vice-president explained that if they are caught in a drag the horseshoe crabs are immediately returned to the lease as their habit of “routing” or plowing the bottom with their carapace (shell) is considered beneficial to the bottom and the oysters. Each representative testified that they do not find or observe horseshoe crabs with carapaces less than 6 inches on the existing leases. They see many horseshoe crab shells discarded from their molting process. Live horseshoe crabs under 6 inches in length are generally found in shallower water depths.

The partner testified that in response to concerns expressed regarding the presence of a pair of eagles nesting on Hog Island he contacted the eagle biologist, Charlie Todd and regional wildlife biologist, Keel Kemper at the Department of Inland Fisheries and Wildlife (IF&W). In response to his inquiry the IF&W biologists indicated that the proposed and existing shellfish lease activities would not and do not pose a threat to this particular pair of nesting eagles. Exhibit 5.

The partner testified that other uses including recreational fishing, setting lobster or crab traps and navigation were compatible with the proposed lease. The partner and vice-president explained that they display a dive flag and always have a tender on site when diving to caution vessels passing through the existing leases of the diver’s presence and would do the same on the proposed lease. According to the application there are no moorings in the area. If an adjacent riparian wished to set a mooring within the proposed lease, the company would work that person to find a mutually acceptable mooring placement. Observations of crab and lobster traps are limited with only 1 – 2 buoys present during the summer months. During July and August 1 – 2 vessels per day use the area to recreational fish, primarily for striped bass.

The partner explained that the European oyster was the species cultivated in the Damariscotta River in the 70's and 80's. He stated that aquaculturists in the area began raising American oysters in 1985 instead of the European oyster. He testified that for the first time two years ago natural sets of American oysters were observed surviving on the rocks and areas off leases. In his opinion, these oysters have settled from spawn produced by the cultured oysters planted on leases in the Damariscotta River. The partner and vice-president testified that when harvesting the adjacent leases they find approximately 200 European oysters over the course of an entire season or per year and would therefore anticipate similar low findings on the proposed site. The partner testified that they have experienced poaching by draggers on the existing adjacent leases as evidenced by loss of product and drag marks in the sediments that are a different size from their drag. The vice-president testified that he does not find soft-shell clams growing on the proposed lease or along its edge. He has also observed dead shells of razor clams and quahogs, not live ones, when harvesting on the existing leases.

A biologist, employed by the Department, testified regarding the statutorily required site review that he conducted November 1, 2000. The Department report included the following criteria: a scuba diver survey of the local flora and fauna and bottom composition; vertical profiles of the water column which include temperature, salinity and depths; proximity measurements of the proposed site to shore and to other leases, plus observations and documentation of local fisheries. Copies of pages with typographical corrections and Appendix A missing from the site report were entered. Exhibit 3.

The biologist testified that an underwater video was taken through the center area and north boundary of the proposed lease. The bottom sediments were mud with cobble and small rocks with a flat topography. The water depths were shallow, varying from about 0.71 feet at point F to approximately 12 feet at point D, the western most corner, at mean low water. In his opinion, point F is not intertidal at extreme low tides. Local flora included occasional kelp, sea lettuce plus an abundance of an unidentified green algae and brushy red weed. The fauna included an abundance of brown benthic diatoms and mud shrimp, common occurrences of sponges, green crabs, rock crabs, sea peaches and unidentified tunicates. Occasional observances were made of hermit crabs, horseshoe crabs and surf clams. No eelgrass was observed. No unusual measurements were recorded for temperature or

salinity. The biologist testified that the featureless bottom was similar to other areas in the Damariscotta River based on previous SCUBA dives. Regarding horseshoe crabs, the biologist explained that young horseshoe crabs prefer to live in eelgrass for shelter, compared to inhabiting an open water area such as the proposed lease. Also, the proposed lease is not located within a protected habitat regulated by the Department of Inland Fisheries and Wildlife for endangered, threatened or significant species.

The biologist testified that the proposed lease falls within an area classified as conditionally approved for the harvest of shellfish. This classification is based on the nearby presence of the Damariscotta sewage treatment plant. The area has been closed infrequently due to improper functioning of the treatment plant. Mandatory closures of the area usually occur from excessive rainfall events. The record was held open to confirm the classification status of the area in response to questions from the public. The Director of the Department of Marine Resources Public Health Division confirmed that the area has a “conditionally approved” classification and that status will not change within the next 3 years due to the presence of the local sewage treatment plant.¹

The biologist contacted the local Harbormaster, Mr. Paul Bryant, for his report. The Harbormaster was familiar with the existing leases and applicant’s activities. He indicated that, in his opinion, vessel traffic is limited to small boats and skiffs operated by persons familiar with the Damariscotta River. The area does periodically ice over in the winter depending on the severity of the season. He indicated the presence of moorings off Hall Point, 150 feet west of the proposed lease. In his opinion the proposed lease would not interfere with those moorings. He added that commercial and recreational fishing was limited in the proposed lease vicinity due to the shallow depths. The

¹ DMR Regulation 95.06 Closed Area No. 25 Damariscotta River, Newcastle, Damariscotta, Edgecomb, South Bristol, Areas 1 and 2, effective February 18, 1998. The proposed lease would be located approximately 100 feet west of a line that separates Areas 1 and 2.

biologist also testified that no fishing activity was observed during his site visit. The biologist's report lists the nearest distances to the high water mark on the Hall Point shore to be approximately 239 feet from the northeastern most corner. The distances from the northwest and western corners due west across the channel to Little Point in Newcastle would range from about 639 – 670 feet. The distance from corner F on the eastern side to Hog Island would be approximately 790 feet. The proposed lease is located a minimum of 200 feet east of the main navigation channel. Due to the shallow depths and ledges, interference with the limited number of vessels in the propose lease area is not expected.

Mr. Peter Glueck, a riparian, testified in support of the proposed lease. Mr. Glueck indicated that the applicant has been a good neighbor. In response to a question from the riparian the Department's biologist testified that in his opinion, there are no shellfish or oysters being raised in large enough quantities in the Damariscotta River that the cultivated shellfish population is or could over-graze the plankton population here such that the available feed for the wild shellfish populations would be diminished. He explained that exact numbers are not easy to quote on this point however, based on what is known it is more likely that social perspectives regarding the use of structures would restrict shellfish farming long before a biological threshold would ever be reached. If biological problems occur they generally will manifest a problem in cultured organisms before impacting wild organisms. The partner added that shellfish feed on plankton in the 3 – 15 micron size range.

A riparian from Hall Point testified in support of the applicant. She testified that the partner addressed her questions and concerns with his inquiries and information concerning eagles on Hog Island provided by biologists at IF&W who review and regulate permitted activities within designated areas established under that agency's regulations for threatened species such as eagles. She also testified that she has lived on Hall Point since 1934 and has not observed dragging in the area except on the existing leases.

A local resident, active in Damariscotta River use issues, testified that he had concerns regarding the number and expansion of leases in the river. He supported the use of no structures. In his opinion, other leases in the river that place trays on the surface appear "junky".

Two local shellfish digger/harvesters testified in opposition to the proposed lease. They opposed the expansion of shellfish leases in the Damariscotta River. In their opinion leases reduce the area they may harvest. In one harvester's opinion, planktonic soft shell clams are captured by suspended aquaculture gear preventing the clam spat from growing on the mud flats. According to another harvester the eastern corner and starting point noted by a prominent boulder is in an area that is intertidal and is located within an area that has been classified as closed for the past 13 years to the harvest of shellfish, which he stated is scheduled to be reclassified as "open" within the next year. Also, the perimeter and particularly the eastern sides of the proposed lease area were inadequately assessed for commercial quantities of the proposed shellfish species except for the American oyster. In his opinion, the applicant's representatives and Department's biologist experience and expertise were not sufficient to determine where low water occurs or to assess the shellfish population within the proposed lease.

Findings of Fact

The proposed lease is located in shallow waters adjacent to ledges that form Goose Ledges located southwest of Hall Point, northwest of Hog Island and west of Huston Cove on the eastern side of the upper Damariscotta River. According to the local Harbormaster the proposed lease does not contain any boat moorings. The Harbormaster indicated that the nearest moorings are located approximately 150 feet away, off Hall Point, and the proposed lease would not interfere with those moorings. According to the Department biologist's report the nearest distances to shore would be approximately 239 feet to Hall Point and westerly across the channel approximately 639 feet to Little Point. According to the partner's testimony access to the proposed lease would be from the Schooner Landing Marina, the Damariscotta public landing or from Clark's Cove. No riparian lands were requested or required by the applicant for the proposed lease activities. Based upon the evidence and testimony, I find that the proposed lease activities will not unreasonably interfere with the ingress and egress of riparian owners.

The proposed bottom culture lease is located adjacent to a system of ledges and two bottom culture leases held since 1983 and 1986 by the applicant. According to the Department's biologist the

proposed lease is approximately 200 feet east of the main channel of the Damariscotta River and due to the shallow nature of the site would have a limited amount of small boat traffic. Testimony by the partner, vice president and biologist indicated a low water depth range across the proposed lease of 0.71 feet to 4 feet. No structures would be placed on the proposed lease except the mandatory corner markers. According to the local Harbormaster vessel activity within the proposed lease vicinity is limited due to the shallow depths. Based on the evidence I find that vessel traffic is quite limited due to the shallow waters and ledges and that the proposed activities will not unreasonably interfere with navigation in the area.

The applicant's representatives, the Department's biologist and the local Harbormaster indicated that there is very limited or no commercial fishing and limited recreational fishing that is primarily for striped bass within the proposed lease. The limited activity is attributed to the shallow water depths and ledges. The activities of crab trapping, recreational fishing and boating described in the record would be allowed according to testimony by the applicant's representatives in the same manner that has been practiced on the applicant's adjacent leases. A shellfish harvester opposed to the proposed lease testified that the easterly boundaries and corners adjacent to the two existing leases are intertidal at low water and have commercial quantities of wild shellfish growing there. However, he testified that he had not harvested in this area for the past 13 years because in his opinion, the area has been closed to the harvest of shellfish by the Department during that time. He testified that the proposed lease was in an area that was anticipated to become "open" for wild shellfish harvesting within the next year.

According to Department Regulation 95.06, Closed area No. 25, Damariscotta River, Newcastle, Damariscotta, Edgecomb, South Bristol, Areas 1 and 2, the area west of a line that in part extends from the "western most tip of Hall Point, then to the most southern tip of Hog Island" is called Area 2 and is classified as a "conditionally approved" area for the harvest of shellfish. According to the maps and documents in the record the proposed lease is situated approximately 100 feet west of the line that separates Area 2 and Area 1 in the above regulation. Under the regulations shellfish harvest within Area 2 is allowed except in the event of a pump failure in the local sewage treatment plant. According to the

Director of the Department of Marine Resource's Public Health Division no change in the classification of Area 2 is anticipated over the next three years.

Credible testimony by the Department's biologist indicated that, although every square foot of the proposed lease was not visually surveyed, based on his expertise and experience, the proposed lease area including the eastern boundaries do not contain high numbers of commercially harvestable shellfish species (and is located totally within subtidal waters).

Given that the area has a very limited amount of commercial and recreational fishing activity as shown by the testimony of the Department's biologist, Harbormaster and the applicant's representative; the credible testimony by the Department's biologist that the proposed lease area does not have large quantities of several species of shellfish and is located in subtidal waters; that the water quality classification of the area as "conditionally approved" (open with conditions) and is not anticipated to change over the next 3 years, I find that the aquaculture activities proposed for this site will not unreasonably interfere with fishing or other uses of the area.

Information in the record indicated that the proposed lease would not interfere with eagles observed on Hog Island. This was confirmed by biologists in the Department of inland Fisheries and Wildlife, which is the agency that has regulatory authority regarding endangered and threatened species. No information in the record indicated that the proposed activities would cause interference with the local flora and fauna. The Department's biologist testified that he did not observe eelgrass with the proposed lease area. The applicant's representatives testified that the bottom culture techniques used on their company's existing leases would be the same techniques practiced on the proposed lease. Based on the evidence and testimony, I find that the proposed activities will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna.

The applicant owns a shellfish hatchery. Production at this hatchery would be sufficient to stock this site. Therefore, I find that there is an available source of American oysters, European oysters, hard clams/quahogs, surf clams and razor clams to be cultured for this lease.

Based on information in the application and Department site review report, I find that the proposed lease activities will not unreasonably interfere with public use or enjoyment and that the proposed lease site is not located within 1,000 feet of any municipally, state or federally owned beaches, parks, or docking facilities.

Conclusions of Law

Based on the above findings, I conclude that:

1. the aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of any riparian owner;
2. the aquaculture activities proposed for this site will not unreasonably interfere with navigation;
3. the aquaculture lease activities proposed for this site will not unreasonably interfere with fishing or other uses of the area, taking into consideration the number and density of aquaculture leases in the area;
4. the aquaculture lease activities proposed for this site will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna;
5. the applicant has demonstrated that there is an available source of American oysters (Crassostrea virginica), European oysters (Ostrea edulis), hard clams/quahogs (Mercenaria mercenaria), surf clams (Spisula solidissima) and razor clams (Ensis directus), to be cultured for the lease site; and
6. the aquaculture lease activities proposed for this site will not unreasonably interfere with public use or enjoyment within 1,000 feet of municipally, state or federally owned beaches, parks, or docking facilities.

The evidence in the record supports a finding that the proposed aquaculture activities meet the requirements for the granting of an aquaculture lease set forth in 12 M.R.S.A. §6072 (7-A).

Decision

Based on the foregoing, the Commissioner grants the requested lease of 5.42 acres to the applicant for a period of ten years, from the date of this decision, for the purposes of cultivating American oysters (Crassostrea virginica), European oysters (Ostrea edulis), hard clams/quahogs (Mercenaria mercenaria), surf clams (Spisula solidissima) and razor clams (Ensis directus), using bottom culture techniques as described in the application and the hearing record. The applicant shall pay the State of Maine rent in the amount of \$50.00 per acre per year. The applicant shall post a bond

or establish an escrow account in the amount of \$500.00, conditioned upon its performance of the obligations contained in the aquaculture lease documents and all applicable statutes and regulations.

Conditions to be Imposed on Lease

The Commissioner may establish conditions that govern the use of the lease area and impose limitations on aquaculture activities. Conditions are designed to encourage the greatest multiple, compatible uses of the lease area, while preserving the exclusive rights of the lessee to the extent necessary to carry out the purposes of the aquaculture law.

The following conditions are placed on this lease:

1. lobster and crab fishing, recreational fishing and boating are allowed in the open areas of the lease;
2. the lease area shall be marked in accordance with U.S. Coast Guard and Department of Marine Resources regulations Chapter 2.80; and

The Commissioner may commence revocation procedures if he determines that substantial aquaculture has not been conducted within the preceding year, or that the lease activities are substantially injurious to marine organisms. If any of the conditions or requirements imposed in this decision, in the lease, or in the law are not being observed, the Commissioner may revoke the aquaculture lease.

Dated: _____

George D. Lapointe (Commissioner)
Department of Marine Resources